

REMARKS

In the Office Action, claims 1, 3, 5-10, 13, 15-21, 23, 26, 28, and 30-37 were rejected. By the present Response, claims 1, 5, 6, 8, 10, 15, 16, 20, 21, 26, 28, 30, 31, 32, and 34-37 are amended. Upon entry of the amendments, claims 1, 3, 5-10, 13, 15-21, 23, 26, 28 and 30-37 remain pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

Drawings

The Examiner objected to the drawings under 37 CFR 1.83(a) stating that the drawings must show every feature of the invention specified in the claims. Applicants respectfully traverse the objection to the drawings and assert that the drawings do show every feature of the claims. In order to hasten the Application to issuance, Applicants have amended the claims to more clearly set forth certain features. The amendments are not intended to narrow the scope of the claims. The claims, as amended, recite a “bypass contactor,” a “bypass contactor having a set of bypass contacts,” and a “set of auxiliary contacts electrically coupled in series with the bypass contactor.”

The “control relay” is shown in the figures as “control relay 78” and is fully supported in the Specification. For Example, the Specification explains, “first contacts 76 of a control relay 78 are electrically connected to the bypass contactor 70.” Specification, pg. 8, ll. 20-22. Therefore, the “control relay” language of the claims was not amended.

In light of the forgoing remarks and amendments, the Applicants respectfully assert that the drawings show every feature of the claimed invention and request the withdrawal of the objection to the drawings.

Specification

The Examiner objected to the Specification as failing to provide proper antecedent basis for the claimed subject matter. The Applicants respectfully traverse the objection to the Specification. As discussed previously, the claims have been amended to more clearly set forth certain features. In light of these amendments, Applicants assert antecedent basis is provided for all the subject matter objected to by the Examiner. Specifically, the claims now recite a “bypass contactor,” a “set of bypass contacts,” and a “set of auxiliary contacts.”

The “control relay” is shown in the figures as “control relay 78” and is fully supported in the Specification. For Example, the Specification explains, “first contacts 76 of a control relay 78 are electrically connected to the bypass contactor 70.” Specification, pg. 8, ll. 20-22. Therefore, the “control relay” language of the claims was not amended.

In light of the amendments and the forgoing discussion, the Applicants respectfully request the withdrawal of the objection to the Specification.

Rejections Under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claims 1, 3, 5-10, 13, 15-21, 23, 26, 28, and 30-37 under 35 U.S.C. § 112, first paragraph, as “failing to comply with the written description requirement”, and rejected claims 1, 3, 5-9, 31, and 34 under 35 U.S.C. §112, second paragraph, as “being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.”

The Applicants have amended the claims to more clearly set forth certain features and, in light of these amendments, respectfully traverse the rejections under section 112.

Claim 1

Applicants have amended the rejected language to recite, *inter alia*, “bypass contactor having a set of bypass contacts.” With respect to the bypass switch comprising a bypass relay, an operator, and first and second sets of contacts cited to by the Examiner, the Applicants emphasize that prior to the amendments, claim 1 did not recite a “bypass switch comprising a bypass relay” as suggested by the Examiner. Rather, a motor control system comprising a bypass switch and a bypass relay is claimed. Finally, the first and second sets of contacts are described in detail throughout the Specification. For example, the Specification states, “the manual bypass switch 24 actually comprises a first set of contacts 52, a second set of contacts 54.” Specification, pg. 7, ll. 13-15. As such, Applicants assert that the claim complies with the written description requirement of section 112.

Claim 5

Applicants have amended claim 5 to recite, *inter alia*, “a set of auxiliary contacts electrically coupled in series with the bypass contactor.” Applicants assert that the claim fully complies with the written description requirement of section 112.

Claim 6

Applicants have amended claim 6 to recite, *inter alia*, a “set of auxiliary contacts to de-energize the bypass contactor.” Additionally, the word “manual” has been removed from the claim. As such, Applicants assert that the claim complies with the written description requirement of section 112.

Claim 19

The claim recites, *inter alia*, an “external communication system to enable the desired variable frequency output to be established remotely via the external communication system.” With respect to the word “remotely,” the Specification explains that an external device such as a programmable logic controller may communicate with

the motor controller to set the desired motor frequency when the motor is operated in variable frequency drive mode. *See* Specification, pg. 10, ll. 8-13. Therefore, the system is able to be controlled by the external device and the word “remotely” describes the relation between the external device and the variable frequency drive. As such, Applicants assert that the claim complies with the written description requirement of section 112 and is fully supported in the Specification.

Claim 31

Applicants have amended claim 31 to recite, *inter alia*, a “bypass contactor configured to be energized by the auxiliary contacts to electrically couple the motor to the external power source such that the bypass contacts are electrically parallel to the variable frequency drive.” The Applicants respectfully assert that the Specification describes a system capable of receiving power from an external power source. Specifically, the Figures show a connector 42 that receives power from a bus. *See* FIG. 2. The connector 42 “electrically couples the motor control system 10 to an electric power source.” *See* Specification, pg. 5, ll. 26-27. One of ordinary skill in the art would understand that the bus and connector 42 electrically couple the system of claim 31 to the external power source. As such, Applicants respectfully assert that the claim complies with the written description requirement of section 112.

Claims 32, 35 and 36

Applicants have amended claims 32, 35 and 36 to recite, *inter alia*, a “bypass contactor.” Applicants assert that the “control relay” of claim 36 is described in the Specification and illustrated in the drawings, as indicated above. Furthermore, the Applicants have amended that claims to be devoid of the word “coil,” even though the Applicants assert that one of ordinary skill in the art would understand that a “coil” is described in the Specification, as it is an inherent part of any contactor or relay. As such, Applicants respectfully assert that claim 32, 35 and 36 are in compliance with the written description requirement of section 112.

Claim 34

Applicants have amended claim 34 to remove the word “can” and assert that claim 34 complies with the written description requirement of section 112.

In light of the amendments and discussion, the Applicants respectfully assert that all of the claims are in compliance with section 112 and respectfully request withdrawal of the rejections of claims 1, 3, 5-10, 13, 15-21, 23, 26, 28, and 30-37.

Rejections Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1, 3, 5-10, 13, 15, 17-21, 23, 26, 28, and 30-37 under 35 U.S.C. § 102(b) as being anticipated by Bowyer et al., U.S. Patent No. 5,920,467 (hereinafter “the Bowyer reference”), and claims 28 and 37 as being anticipated by Owen et al., U.S. Patent No. 5,130,628 (hereinafter “the Owen reference”). Applicants respectfully traverse these rejections.

Anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

The Bowyer reference does not anticipate independent claims 1, 10, 20, 28, 31 and 37.

The Browyer reference fails to disclose each limitation of independent claims 1, 10, 20, 28, 31 and 37. Specifically, independent claim 1 recites, *inter alia*, “a first set of contacts electrically coupled in series *between* a power source and an input of a variable frequency drive; a second set of contacts electrically coupled *between* an output of the variable frequency drive and a load.” (Emphasis added). Independent claim 10 recites, *inter alia*, “a bypass relay...having at least one set of contacts electrically connected in parallel with the variable frequency drive and electrically connected in series *between* the external power source and the motor.” (Emphasis added). Independent claims 20 and 37 recite, *inter alia*, a “bypass switch ... operable to electrically isolate the motor drive from

the power source and from the motor, and to close the bypass contactor to couple the motor directly to *the* power source.” (Emphasis added). Independent claims 28 and 31 recite, *inter alia*, “positioning the manually–operated switch in a second position to uncouple the variable frequency drive from *the* power source and the motor and to close a contactor to couple *the* power source directly to the motor.” (Emphasis added). Therefore, the claims are directed to coupling or uncoupling a variable frequency drive between a single power source and a load.

In sharp contrast, the Bowyer reference discloses a system for coupling to *alternative sources* of power. Specifically, the Bowyer reference discloses a system wherein a load is coupled to at least two different power sources. *See* Bowyer, col. 4, ll. 52-62; FIG. 2. The load is *either* coupled to a shipboard main AC distribution bus, or an AC shore power source located on the dock. *See id.* Nowhere does the Bowyer reference disclose the coupling or uncoupling of a variable frequency drive *between* a load and a single (i.e. “the”) power source. For at least this reason, the Bowyer reference cannot anticipate the independent claims 1, 10, 20, 28, 31 and 37. As such, the Applicants respectfully request withdrawal of the rejection of independent claims 1, 10, 20, 28, 31 and 37, as well as the rejection of any dependent claims.

The Owen reference fails to anticipate independent claims 28 and 37

The Owen reference does not disclose all of the elements recited in the independent claims 28 and 37. Independent claim 28 recites a method based upon the operation of a contactor, and a manually operated switch to uncouple a variable frequency drive from a power source and to couple a motor directly to the power source. Independent claim 37 recites, *inter alia*, a system comprising “a bypass contactor electrically in parallel with the motor drive; a motor control system comprising a manual bypass switch ... operable to electrically isolate the motor drive from the power source and from the motor, and to close the bypass contactor to couple the motor directly to the power source.”

In sharp contrast, the Owen reference does not utilize contactors, or relays. Furthermore, the switch 50 of the Owen reference does not couple a power source to a variable frequency drive *and* electrically couple the variable frequency drive to a motor. Rather, the switch 50 of the Owen reference couples a power source to a conventional frequency converter and motor controller, but does not couple anything *directly* to a motor. For at least these reasons, Applicants respectfully request that the rejection of claim 28 and 37 be withdrawn, and that claims 28 and 37 be allowed, as well as all claims depending therefrom.

Rejections Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claim 16 under 35 U.S.C. § 103(a) as being unpatentable over the Bowyer reference. Applicants respectfully traverse this objection.

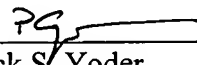
Claim 16 depends from independent claim 10. As discussed above, the Bowyer reference fails to disclose all the elements of independent claim 10. As such, Applicants assert that Bowyer does not disclose all the elements of claim 16 based at least on its dependency from independent claim 10. Therefore, Applicants respectfully request withdrawal of the rejection of claim 16 based on its dependency from independent claim 10.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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